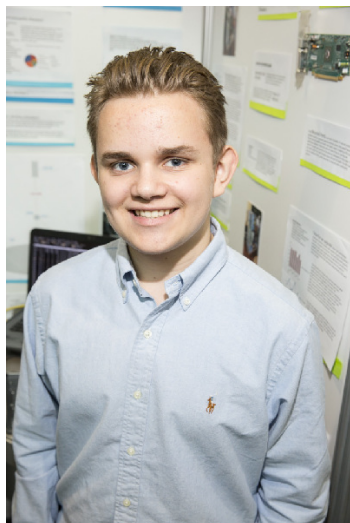


## CWSF 2015 - Fredericton, New Brunswick



### Mitchell Hynes

#### Imagine this!: Curing Disease with Protein Folding Simulations

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Timmins

**City:** Timmins, ON

**School:** Timmins High & Vocational School

**Abstract:** Proteins are used universally around the human body, from cell energy balance, to hair structure. When they encounter errors coming from their original 2D state, they cause 'Proteopathic Diseases', such as Cancers, Alzheimer's, and many, many more. Using software, my project simulates how proteins fold, which helps to find how folding errors occur. Then we can develop drugs that help them fold correctly again.

### Biography

My name is Mitchell Hynes, and I've been a Computer Science Hobbyist for about six years now, I love working on practical problems and developing software that I use every day, and share with my friends. Such as a free private VPN server for my friends and I, an open-source game engine and one of my biggest achievements, a protein folding computer. I run a web-server from my house (<http://www.ecumene.xyz>) where I host prototypes for websites & web apps I'm developing. My plans for the future are to keep trying to find ways to express my creativity without the limitations that exist, and hopefully make computer science more interesting to teens my age. I'm a freshman highschool student, which means I still have a lot to learn. The best advice for someone thinking of making their own project would be to never stop doing the things that interest you, you'll learn the importance of this down the road. A educational hobby is one of the world's most amazing tools.

